

**PREFETCH CONTROLLER FOR CONTROLLING RETRIEVAL
OF DATA FROM A DATA STORAGE DEVICE**

Abstract of the Disclosure

5 A prefetch controller controls retrieval of data from a data storage device
in response to a current host command received from a host device. The
prefetch controller includes a sequential read detector configured to generate a
new sequential read indication for the current host command if the current host
command and a previously received host command specify read operations that
10 are non-sequential. The prefetch controller includes a transfer length generator
configured to provide a first transfer length value to the data storage device if the
new sequential read indication is generated for the current host command, and
provide a second transfer length value to the data storage device if the new
sequential read indication is not generated for the current host command.